

Improving decision making by affecting processing mode. Insights via the foreign language effect.

Imagine you are jaywalking, and a police officer caught you in the act. He says that because you regret doing this he gives you a choice: either you pay \$100, or flip a coin and if it falls heads you will pay nothing, but if it falls tails, you will pay \$200 instead. Most likely you opt to flip a coin. At least, this is what most people declare to select. Now, consider another problem: you helped an elderly woman to deliver her groceries on the fifth floor with no elevator. Her rich neighbor sees this and decides to reward you. Now, you can either take \$100, or flip a coin with 50% chance to get \$200 or nothing. Now, you most likely opt for sure \$100. But if you look carefully, both decisions were about choosing x or $2x$ with 50% probability. Yet, once you preferred to gamble (so you thought that $x < \frac{1}{2} * 2x$), and the other time you selected a certain outcome (so you thought that $x > \frac{1}{2} * 2x$). But these are the same equations!

Such inconsistency in decision making is extremely impactful for everyday life. People err, transgressing rules of rational thought. In the effect they achieve less than they could have achieved. The goal of this project is to develop interventions aiding people in making better decisions in important problems (e.g., loans) and in solving disputes they can have with other people.

One of the most exciting new findings in psychology is the foreign language effect. It shows that if a problem is presented to people in their foreign language, they make more rational decisions, e.g., are not affected by framing of the outcomes as in the example above. They take better risks without being trained in probability theory or even being equipped with calculator. Foreign language effect helps in many other problems, for example it affects moral decision making by making it consequence oriented. Such change helps people to discuss morally charged problems because instead of discussing values (which are hardly amendable) they discuss outcomes (which are objectively testable and amendable).

The goal of this project is not only better understanding in the foreign language effect, but primarily, the goal is to understand how people switch on a reflective mode of processing. Or differently put: why they do not do this on a daily basis when thinking in their mother tongue. Learning about this is the first step of this project. We know quite a lot about this problem because over last three years I have been researching this effect with support of the National Science Centre, Poland. More ambitious goal is to use this knowledge about the foreign language effect to nudge people to engage in more rational processing mode. This should benefit their decision making. This goal is achievable thanks to understanding how mind switches between processing model when using foreign language. Once these mechanisms are known, we can research how to mimic these processes in everyday life without the prerequisite of using foreign language.

To wrap up, the goal of this project is systematically review our understanding of the foreign language effect, using this knowledge to describe how mind selects and switches between processing modes, and finally to design interventions aiding people in selecting the most appropriate mode for a given problem. Each of these goals will be rigorously designed and analyzed experiments. I'm certain this will benefit both scientific understanding of how the mind works, and lay people in their everyday life.